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CALIFORNIA STATE MINING BUREAU,



FERRY BUILDING, SAN FRANCISCO.

LEWIS E. AUBURY, STATE MINERALOGIST.

CHEMICAL ANALYSES OF CALIFORNIA PETROLEUM.

By H. N. COOPER, Chemist.

[Data and Samples Collected by MARION AUBURY, Field Assistant.]

[All samples (except one) taken direct from pump by Field Assistant, State Mining Bureau; No. 61 furnished by owners of well.]

NO. OF SAMPLE.	NAME OF COMPANY.	COUNTY.	SECTION.	TOWN-SHIP.	RANGE.	DISTRICT.	ELEVATION.	SHIPPING STATION.	ADDRESS.	NUMBER OR NAME OF WELL.	FORMATION.	DEPTH OF WELL.	DAILY YIELD.	AMOUNT PRODUCED.	TIME OPERATED.	DEPTH TO SAND.	THICKNESS OF OIL SAND.	PIPE-LINE, IF ANY.	NO. OF SAMPLE.	SPECIFIC GRAVITY AT 60° F.	FLASH.	VISCOSITY.					PERCENTAGE.	DISTILLATION.										NO. OF SAMPLE.											
																						10° C. (about 60° F.).	50° C. (122° F.).	100° C. (212° F.).	200° C. (392° F.).	Sec. 1.		Sec. 2.	Sec. 3.	Sec. 4.	Sec. 5.	Sec. 6.	Sec. 7.	Sec. 8.	Sec. 9.	Sec. 10.	Sec. 11.		Sec. 12.	Sec. 13.	Sec. 14.	Sec. 15.	Sec. 16.	Sec. 17.	Sec. 18.	Sec. 19.	Sec. 20.		
0	Watsonville Oil Co.	Santa Clara	3 miles N. W. of	Sargents	Sargents Ranch.		Per. 315	Chittenden	Sargents	No. 2	Sand	1187	200	4000	Since Dec. 15, 1903	620	100	24 miles	0	18.7	.9416	below 15°	750	27.28	53	1.92	.83	10,393	9,786	none	2.0	7.0	8.8	9.4	23.2	35.0	2.2	19.6	2.8	.7243	.7774	.8307	.8745	.9095	.9180	.9148	0		
1	Western Union Oil Co.	Santa Barbara	1 mile S. E. of	San Luis Obispo	San Luis Obispo		900	Coalinga	San Luis Obispo	No. 3	Sand and Shale	1610	125	112,500	21 years	1538	65	40 miles to landing	1	20.0	.9337	below 15°	1060	38.40	77.4	2.81	2.08	10,369	9,907	none	9	6.0	10.5	9.3	11.0	39.5		7596	.8087	.8538	.8875	.9167		1					
61	Western Union Oil Co.	Santa Barbara	10 mi. S. E. of	San Luis Obispo	San Luis Obispo		900	Coalinga	San Luis Obispo	No. 3	Sand and Shale	1610	125	112,500	21 years	1538	65	40 miles to landing	1	20.0	.9337	below 15°	1060	38.40	77.4	2.81	2.08	10,369	9,907	none	9	6.0	10.5	9.3	11.0	39.5		7596	.8087	.8538	.8875	.9167		61					
2	Pinal Oil Co.	Santa Barbara	23 & 24	9 N.	34 W.		700	Coalinga	Santa Maria	Nos. 1 and 3	Sand	1600			Since Dec. 1902			No line	2	17.6	.8882	below 15°	90	3.27	37.1	1.36	1.56	10,543	9,364	none	8.2	17.7	12.1	9.4	9.1	29.7		7123	.7617	.8132	.8583	.8899	.9085	2					
3	Union Oil Co. of California	Santa Barbara	Rancho La Purisima	Longue			1250		Los Angeles	Hill No. 1	Sand	2500	350		Since Feb. 5, 1903	2200	300	No line	3	16.2	.9574	21°	over 1800	65.00	227	8.23	4.43	10,258	9,822	7.0	1.3	3.9	5.5	7.7	18.3	34.3		7737	.7906	.8316	.8613	.8892		3					
4	Sea Cliff Oil Co.	Santa Barbara	Summerland	Sea level					Santa Barbara		Sand	190						No line	4	14.9	.9665	above 70°	1800	65.00	108	3.91	.44	10,348	10,001		7	0.0	0.0	1.0	10.0	17.4	45.5				.8516	.8840	.9347		4				
5	Potomac Oil Co.	Santa Barbara				Summerland	90		Los Angeles	No. 4 Daniel's lease	Sand	260	3	7000	44 years		240	500 feet	5	15.8	.9603	above 70°	1800	65.00	90.4	3.20				trace	0.0	0.0	3.0	9.9	15.4	48.0		22.8	.9		.8082	.8535	.8913	.9143		5			
6	Union Oil Co. of California	Ventura	Rancho	Ex-Mission	Adams Cañon			Santa Paula	Los Angeles	No. 27	Sand	2745	35		Since Sept. 9, 1891		600	10 miles	6	28.9	.8814	below 15°	162.1	5.91	37	1.34	.48	10,647	9,384		4.0	14.1	9.1	9.3	10.1	43.0		9.8	.6	.7250	.7736	.8111	.8388	.8547	.8778		6		
7	Union Oil Co. of California	Ventura	Rancho	Ex-Mission	Adams Cañon			Santa Paula	Los Angeles	Green Oil Tunnel	Sand and Shale				15 years				7	20.1	.9326	68°	247	8.95	38.4	1.40	.32	10,674	9,889		trace	0.0	.8	7.8	16.3	17.4	40.0		16.6	1.1		.8083	.8368	.8718	.9013		7		
8	Union Oil Co. of California	Ventura	Rancho	Ex-Mission	Salt Marsh Cañon			Santa Paula	Los Angeles	No. 11	Sand	520	100		Since May 14, 1897		48	10 miles	8	19.7	.9351	below 15°	878	31.82	55	1.98				none	1.4	8.7	8.3	8.7	8.9	40.1		20.7	3.2	.7236	.7625	.8103	.8578	.8964	.9156		8		
9	Union Oil Co. of California	Ventura	12	3 N.	20 W.	Bardsdale Cañon		Ventura	Los Angeles	Robinson No. 2	Red and White Sand	685	25		11 years		525	160	30 miles	9	27.6	.8881	below 15°	205	7.43	41.1	1.51	1.74	10,484	9,310	none	8.9	10.6	8.7	7.3	15.5	29.0		16.9	3.1	.7039	.7611	.8013	.8340	.8631	.8778		9	
10	Burrows & Sons	Ventura	11 mi. N. W. of	Santa Paula	Whider Cañon		1010	Ventura	Santa Paula	No. 6	Sand	958	20	1800	Since Mar. 11, 1903		500	4 to 50	27 miles	10	29.7	.8767	below 15°	77	2.79	34.1	1.24	.72	10,645	9,332	none	12.8	13.8	9.9	7.7	9.8	30.0		14.8	1.2	.6986	.7601	.7999	.8466	.8830	.8920		10	
11	Burrows & Sons	Ventura	11 mi. N. W. of	Santa Paula	Whider Cañon		1300	Santa Paula	Santa Paula	Garrett Tunnel	Sand	640	34		18 years		90, 200	27 miles	11	28.6	.8828	29°	53	1.92	31.1	1.15				none	0.0	12.3	16.6	14.3	13.7	37.3		6.2	gain .4		.7798	.8129	.8460	.8787	.9014		11		
12	Westlake-Romell Oil Co.	Ventura	17 & 18	4 N.	21 W.	Sespe Pete Mining	1350	Santa Paula	Los Angeles	Old No. 6	Sand and Shale	1000	3 to 5		35 years		600	80, 100, 105	12	27.3	.8900	below 15°	61.1	2.23	34.1	1.24				none	9.3	16.5	11.8	7.7	9.1	31.8		13.0	.8	.7228	.7724	.8202	.8613	.8901	.9154		12		
13	Los Angeles Pacific Railway Co.	Ventura	16	4 N.	21 W.	Santa Paula	1375	Santa Paula	Los Angeles	Capital Crude No. 20	Sand and Shale	1000	30	2000	Since Sept. 1902	400 to 500	100, 200	7 miles	13	27.3	.8900	below 15°	61.1	2.23	34.1	1.24				none	9.3	16.5	11.8	7.7	9.1	31.8		13.0	.8	.7228	.7724	.8202	.8613	.8901	.9154		13		
14	Whidden Double	Ventura	NW 4 12	4 N.	22 W.	Ojai	1450	Santa Paula	Santa Paula	No. 4	Sand	284	16	2000	Since Aug. 1900		240	24 miles	14	13.4	.9759	56°	over 1800	65.00	252	1.33	1.48	9,112	8,892		none	0.0	0.0	6.1	18.9	30.8		38.1	.1		.8102	.8510	.8820	.8925		14			
15	Los Angeles Pacific Railway Co.	Ventura	18	4 N.	20 W.	Timber Cañon	2500	Santa Paula	Los Angeles	Timber Cañon No. 3	Sand	1180	12	4500	18 months		880, 1100	60	7 miles	15	35.1	.8481	below 15°	45.1	1.66	31.1	1.13				none	15.3	15.0	9.5	9.9	9.9	28.0		10.6	1.8	.7002	.7639	.8015	.8321	.8624	.8875		15	
16	Union Oil Co. of California	Ventura	6	4 N.	19 W.	Little Sespe Cañon	1000	Ventura	Los Angeles	No. 7	Sand	1175	15		5 years		1010	165	30 miles	16	30.9	.8701	below 15°	77	2.79	45.1	1.66				none	9.3	10.2	9.8	8.8	11.4	34.9		13.2	2.4	.7057	.7623	.7998	.8285	.8570	.8769		16	
17	Sulphur Mountain Petroleum Co.	Ventura	15 mi. N. W. of	Santa Paula	Sulphur Mountain		2500	Fullerton	Fullerton	No. 1	Sand	2150	18	300	Since Apr. 27, 1903	1975		No line	17	17.6	.9486	below 15°	2240	81.15	73	2.65	1.46	10,306	9,776		8	3.1	4.8	8.1	7.4	+ 28.8	20.0		25.0	2.0	.7345	.7725	.8178	.8620	.8870	.9302		17	
18	Buckhorn Oil and Transportation Co.	Ventura	13	4 N.	19 W.	Buckhorn	1100	Buckhorn	Buckhorn	No. 15	Sand and Shale	950	20		3 years		80	10 to 50	24 miles	18	14.6	.9685	above 70°	1800	65.00	116	4.20				9.3	0.0	0.0	5.9	15.3	6.0	23.7	16.7	23.0	.1		.8607	.8888		.9156	.9307		18	
19	Union Oil Co. of California	Ventura				Torrey Cañon	1650	Union Oil Co. of California	Los Angeles	No. 52	Sand and Shale	1410	13		3 years		900	510	30 miles	19	29.9	.8758	below 15°	103	3.73	38	1.38	.71	10,611	9,293	none	8.3	10.4	9.1	8.8	10.2	23.9	9.8	16.6	2.9	.7044	.7674	.8038	.8316	.8554	.8740	.8872		19
20	Modelo Oil Co.	Ventura	8	4 N.	18 W.	Piru	2350	Piru	Piru	No. 22	Sand	1100	15		Since July, 1902		600	100	4 miles	20	28.4	.8838	below 15°	63	2.28	34	1.23				none	7.7	15.6	10.7	10.8	14.0	15.3	8.9	16.6	.4		.7119	.7722	.8126	.8493	.8827	.9066	.8644	20
21	L. W. Shirley	Los Angeles				Middle Field		Los Angeles	Los Angeles	No. 12	Sand	1340	10																																				